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# VIOLATING INTERPERSONAL DISTANCING EXPECTATIONS, DISTRACTION AND REWARD ON SOURCE ATTRACTION, CREDIBILITY AND PERSUASION

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## ABSTRACT

The role of two nonverbal variables, conversational distance and physical self-presentation, were examined as potential sources of distraction and for their consequent effects on susceptibility to persuasion. The distraction literature was reviewed and synthesized into five propositions, which served as a starting point for predicting how distraction should generally affect persuasion. A model of conversational distancing violations was then adapted to predict how nonverbal variables specifically might function as distractors. Results of an experiment manipulating violations of distancing expectations and attractiveness of confederates (N = 350) supported distance violations and physical appearance as sources of distraction and provided modest support for the prediction that attractive individuals engaging in violations of expectations will serve as positive sources of distraction, leading to greater susceptibility to persuasion. Failure to support the prediction that unattractive individuals engaging in violations of expectations would foster more resistance to persuasion was partly explained by the lack of a highly unattractive confederate. Predictions regarding propensity to counterargue and derogate a source were not supported and raised questions about the measurement or conceptualization of the construct.

VIOLATING INTERPERSONAL DISTANCING EXPECTATIONS, DISTRACTION AND REWARD ON SOURCE ATTRACTION, CREDIBILITY AND PERSUASION

Two ways individuals are posited to resist persuasive attempts are through counterargument and source derogation. Individuals may silently attack the arguments in a persuader's message or silently criticize the source on personal dimensions. In both cases, the degree of resistance may be mediated by the presence of external sources of distraction.

Research testing the effects of distraction on resisting persuasion has often resorted to rather extreme and contrived operationalizations to insure that distraction was actually induced. It has taken such forms as flashing lights, heckling, movies or slides presented simultaneously with the message, eating, irrelevant tasks and experimental instructions to direct attention elsewhere. The messages have also usually been presented on audiotape or videotape. The result commonly has been to create conditions that have negligible isomorphism with normal interpersonal communication contexts. It would seem profitable for communication researchers, at least, to shift the focus to more natural, realistic sources of distraction that are inherent in a social interaction.

One such possible source of distraction is conversational distance. Every face-to-face encounter involves a distance between interactants which is heavily norm-governed, can be systematically varied, is often manipulated with intent, and frequently conveys relational messages. Research has also confirmed that people exhibit strong, often anxious, reactions to distance changes, particularly when their expectations have been violated, Conversational distance is therefore an inherently present nonverbal variable that has great potential as a distractor.

A second class of nonverbal variables that may serve as intrinsic distractors is the features of the persuader's self-presentation--such things

as appearance and demeanor. Individuals who are exceptionally unattractive or use strange mannerisms, for instance, may distract the listener; so may highly attractive, highly skilled speakers. What should be of interest in the resistance to persuasion paradigm is which source characteristics are potential distractors and whether such distractors inhibit or facilitate counterarguing and source derogation.

This article is designed to explore the possible role of nonverbal variables as intrinsic sources of distraction in persuasion contexts and their relationship to the resistance process. First the distraction literature will be reviewed, then relevant nonverbal communication literature will be examined for evidence of distraction potential, and a model advanced of the relationship of nonverbal distractors to persuasion. Finally, the results of an initial test of the predictions will be presented.

In keeping with the recommendations of Miller and Burgoon that a more expended view be taken of persuasion,[1] this article will include as persuasion outcomes the perceived credibility and attractiveness of the persuader. This monograph will also focus on persuasion within the interpersonal context.

## DISTRACTION AND PERSUASION

It has been argued that the ability of a message to be influential is dependent upon its being received and understood by the receiver, its probability of being discredited and the validity of the arguments to which the receiver must yield.[2] Distractive stimuli may affect all three of these facets. According to Festinger and Maccoby, the simultaneous presentation of disruptive stimuli along with a counterattitudinal message enhances the persuasiveness of the message by interfering with the production of subvocal counterarguments, the rehearsal of arguments or the derogation of the

persuader's character and competence.[3] Baron, Baron and Miller have similarly argued that distractive stimuli should facilitate persuasion by dividing the receiver's attention, disrupting the screening of information and inhibiting the production of counterarguments, thus making the receiver more susceptible to the message.[4] Several investigations have found support for increased distraction producing increased susceptibility to counterattitudinal messages.[5] In these investigations, the inhibition of counterarguing was offered as the explanation.

Since counterarguing is a subvocal, psychological process, several experiments have also been designed to establish whether counterattitudinal messages do in fact generate counterargumentation, whether counterarguing reduces message acceptance and whether distraction interferes with such internal rebuttal. A study by Brock helped to support the first two critical links in the underlying logic. His results demonstrated that as a message becomes more discrepant from a person's own attitudes, more counterarguments are generated, and that increased counterarguing corresponds with less yielding to the message.[6] Other researchers have supported the third link by confirming that distracted subjects generate fewer counterarguments than nondistracted subjects.[7]

In contrast to the counterargument formulation of the relationship between distraction and persuasion, an alternative model based on learning makes opposite predictions. As outlined by McGuire, distraction should interfere with the learning of new arguments, which should lead to less attitude change because comprehension of the arguments must precede yielding to the message.[8] In support of this interpretation, several researchers have found either decreases in message acceptance[9] or no effect for distraction[10] and have found corresponding decreases in recall in distraction conditions.[11]

The resolution of these conflicting results on distraction and persuasion no doubt lies in part in the degree of the distraction. Even those who have supported the counterargument formulation[12] have acknowledged that a distraction must not be so extreme as to preclude comprehension of the message. Where the distraction interferes with learning, no attitude change effect can be expected. What has been at issue is how severe a distraction must be before it truly inhibits the subconscious processing of the information in a message, an issue that has not been resolved.

Some additional explanations have been offered for the mixed results in the distraction literature. Baron, Baron and Miller have suggested that the focus of attention may affect results.[13] Consistent with this analysis, Zimbardo et al. found that when subjects focused primarily on the message, attitude change increased, but when they focused on the distractor (an irrelevant task), less attitude change obtained.[14] Burgoon, Cohen, Miller and Montgomery, taking a different tack, operationalized distraction as concentrating on either positive or negative features of the message itself or the source of the message. They similarly found that the focus of attention makes a difference: subjects who attended to positive characteristics (source or message centered) initially exhibited more attitude change, but subsequently shifted back toward their original position, presumably due to counterarguing, while those who focused on negative characteristics, and particularly negative source characteristics, were more susceptible to a second persuasive message, presumably because they had not been motivated to counterargue.[15] The nature of the distraction, then, appeared to affect the counterarguing process.

Another possible explanation for the mixed distraction results is the nature of the message itself. In the Breitrose, Gardner, and Vohs and Garrett studies,[16] for instance, the failure to find attitude change may have been a

function of a dull or noninvolving message. In a study by Regan and Cheng, the complexity of the message emerged as a possible factor: subjects exposed to a simple but unconvincing message changed their attitudes more when distracted than not distracted; those exposed to a complex but convincing message changed their attitudes less when distracted than not distracted.[17] The features of the message itself are therefore no doubt factors determining what effect the distraction will have. If the message is low in interest, too difficult to follow or unpersuasive, the receiver may choose not to attend to it at all. A minimum requirement in any persuasion experiment is that receivers be motivated to listen to the message.

Yet another explanation for mixed research findings is individual differences in motivation to counterargue. It has been suggested that some individuals have a greater propensity to counterargue a message than do others.[18] Just as some individuals tend to focus on the communication source when processing a persuasive message, others are motivated to focus on the content of the message, testing, attacking and refuting arguments contained in the message. Brandt et al. obtained support for the hypothesis that individuals with a high propensity to counterargue (as pretested by a checklist of arguments) would be more prone to counterargument production and more resistant to a communicator's influence than individuals with a low propensity to counterargue. Further, they suggested that perceptions of source credibility were affected by an individual's propensity to counterargue. Subjects with a high propensity to counterargue perceived the message source as significantly less credible than did their low propensity counterparts.[19] This result is complementary to other findings that decreased counterarguing is associated with competent sources.[20]

These latter findings relate to a final explanation for the conflicting

results in distraction experiments: source derogation. As noted in the introduction, an alternative to counterarguing in resisting an influence attempt is to derogate the source of that attempt. The question, however, is whether counterarguing and source derogation are actually mutually exclusive alternatives or whether they can occur simultaneously in varying degrees. Festinger and Maccoby noted that distraction should inhibit counterarguing and lead to increased susceptibility to persuasion unless the receiver was able to reject and derogate the communicator.[21] Their position would suggest that counterarguing and source derogation are mutually exclusive alternatives--a receiver may elect either mode to resist influence. Some research seems to support this interpretation. Miller and Baron, who, like Festinger and Maccoby contend that source derogation is actually a component of counterarguing, conducted two studies in which they manipulated credibility and distraction. In the first, distraction produced greater attitude change than no distraction when the source was highly credible (as manipulated by vocabulary and accent); it produced no differences when the source was less credible. In the second study, credibility differences were induced prior to the message presentation in the form of written descriptions. Under that condition, distracted subjects were less persuaded in both credibility conditions. Miller and Baron explained the differences in findings by noting that subjects appeared not to have perceived the sources as credible and therefore two low credibility conditions existed. Hence, subjects in the high credible/no distraction condition of the first study were able to resist the message by counterarguing, while subjects in the low credible conditions in both studies merely resorted to source derogation.[22] In keeping with this interpretation, Kiesler and Mathog have suggested that when exposed to a "barely" credible source, the individual does not need to counterargue, (s)he can rely on source derogation alone to resist the persuasive attempt.[23]

While this dual alternative approach to resisting influence seems reasonable, it also seems plausible that counterarguing could trigger source derogation. That is, the process of counterarguing might lead the receiver to derogate the quality of the message and in turn derogate the creator of it ("a source using these arguments is unqualified to speak on this topic"). If this interpretation is valid, rather than an "either-or" relationship between counterarguing and derogation, the two should work in tandem. This latter interpretation is partially supported by the earlier cited work of Brandt et al., who found a high correlation between propensity to counterargue and actual negative evaluations of a message source.[24] The results of the Burgoon et al. experiment can also be interpreted as supportive. Subjects who received a negative critical assignment were, like those who received no critical assignment, unpersuaded by the first message. For those who were critically evaluating the source, it could be argued that their attention to negative characteristics prompted them to derogate the speaker rather than engage in counterarguing. That they were <u>not</u> motivated to counterargue is indicated by their heightened vulnerability to a second message on the same topic. By contrast, those who initially critically evaluated the message had to at least attend to the arguments, but they may have then discounted them by discrediting the source. That the arguments <u>did</u> motivate counterarguing is implicit in the finding that those subjects were <u>resistant</u> to a second message.[25] A plausible interpretation, then, is that subjects who focused on the negative message characteristics may have begun counterarguing but suspended it during the message by shifting to a rejection of the source, then later resumed the argument evaluation process. Their resistance to the messages could not be explained by successful counterargument alone since subjects who focused on both positive and negative arguments were the

most vulnerable to the message, i.e., the focus on arguments distracted them from, rather than facilitated, counterarguing.

Whichever interpretation of the relationship between counterarguing and source derogation is correct, it has important implications for the outcomes of a persuasive interpersonal encounter, as will be seen shortly.

In sum, the research and theorizing on distraction and resistance to persuasion lead to several important conclusions which can be framed as propositions.

> Proposition 1: Susceptibility to persuasion is greatest under conditions of MODERATE distraction; resistance to persuasion is greatest under conditions of EXTREME distraction.

Moderate distractions inhibit counterarguing and source derogation. Extreme distractions interfere with comprehension and therefore result in maximum resistance. When no distraction exists, counterarguing may take place but so may some persuasion.

> Proposition 2: Under conditions of distraction, susceptibility to persuasion is greatest with a simple but involving message; resistance to persuasion is greatest with a noninvolving and/or complex message.

A noninvolving message reduces attention; a complex one reduces comprehension. In both cases, the reduced learning means that less persuasion can take place. With a simple yet interesting message, the receiver is motivated to attend, but the presence of distraction prevents adequate counterarguing.

> Proposition 3: Under conditions of distraction, susceptibility to persuasion increases as source credibility increases.

With a highly credible source, a receiver does not have the alternative of rejecting the message by derogating the source. The only alternative to resist the message is to engage in counterarguing, which is disrupted in the presence of distraction. The result is increased yielding to the message.

> Proposition 4: The effectiveness of distraction in inducing greater attitude change increases as the propensity to counterargue decreases.

Those who have a high propensity to counterargue are assumed to be more critical and rejecting in general. If distraction reduces their opportunity to refute arguments, they can be expected to resort to derogation as an outlet for their typically nonreceptive posture.

> Proposition 5: Susceptibility to persuasion is greatest when the receiver focuses attention on positive source characteristics, positive message characteristics or a combination of positive and negative message characteristics; resistance to persuasion is greatest when the receiver focuses attention on negative message or source characteristics.

The act of concentrating on the arguments of a speech or the characteristics of the speaker is distracting. When the focus of attention includes any positive features, derogation of the speaker is not a viable mode of resisting influence and since the critical task itself interferes with counterarguing, yielding is maximized. When the focus of attention is on negative source characteristics, counterarguing is unnecessary; the receiver need merely denigrate the source. When the focus is negative message characteristics, some counterarguing may be triggered but is probably suspended in favor of source derogation on the basis of the quality of the arguments.

These propositions outline some of the key conditions under which distraction should and should not lead to successful persuasion. The next step is to consider nonverbal variables which might function as distractors and satisfy the other criteria implicit in the propositions.

## NONVERBAL VARIABLES AS DISTRACTORS

One natural source of distraction present in all face-to-face interactions is interpersonal distance. Research has amply demonstrated that at the behavioral level, people are responsive to changes in the distance adopted between themselves and others.

The greatest volume of research in this area has centered on effects of personal space violations. Personal space has been defined as a "body-buffer zone,"[26] "the space immediately surrounding an individual which he feels to be personal, to belong to himself,"[27] or "an invisible, dynamic, and transportable space the size of which is governed by the individual's felt need at any point in time."[28] The violation of this "bubble" of space activates a number of responses indicative of anxiety or discomfort. The compensatory and physiological reactions that have been documented include: reductions in eye contact, threat stares, increased body lean, changes in body orientation, erection of body or object barriers, increased self-manipulations, increased verbosity, random arm and leg movements and other nervous gestures, increased GSR, and flight.[29] It is clear that increased proximity has arousal value. Other research has found that increased distance (beyond the normative distance) also results in behavioral changes.[30] It seems reasonable to conclude that adjustments in distance, because of their ability to arouse anxiety or discomfort, have the potential to serve as distractors, at least at the subconscious level.

Further research suggests that changes in conversational distance may also be distractive at a conscious level. Burgoon and others have argued that conversational distance is a nonverbal message form that has clearly recognizable meanings and is often manipulated with the intent of communicating those meanings.[31] This suggests that people may be cognizant of distance adjustments as they are taking place. Moreover, several experiments have produced significant changes in attitudes and evaluations of interactants as a result of changes in distancing.[32] The implication is that such proxemic changes may do more than trigger unconscious, reflexive reactions; they may also involve cognitive processes at a conscious level. To the extent that they impinge on active thought processes, they may be more powerful sources of distraction. If, for example, an individual is so bothered by another person's deviant spacing behavior as to mentally note it and try to make sense of it, (s)he should be more distracted from the other person's message than if (s)he subconsciously registered discomfort and adjusted to the deviant distance.

A second potential source of nonverbal distraction is an individual's self-presentation or "front"--those aspects of appearance and demeanor that people modify and monitor to create various impressions.[33] Not all aspects of personal appearance and behavior are controlled or controllable, but they all still contribute to the overall image being conveyed. That such elements of one's nonverbal repertoire can be distracting seems obvious. It is a commonplace that some people are so utterly attractive or homely that their appearance distracts others from what they are saying. Similarly, people may engage in pleasant or unpleasant social behaviors that draw attention away from the content of a message and toward the interpersonal relationship. Flirtatious behavior, for instance, demands consideration of

its meaning and directs attention to the relational rather than the substantive components of a message.

To the extent that one actively controls one's front--for example, taking painstaking care with grooming and dress--those nonverbal behaviors become messages like conversational distance and heighten the possibility that they will be decoded as well as encoded in a conscious manner. Hence, the greater opportunity to be distracting.

Research on the role of these nonverbal behaviors in conferring resistance to persuasion or overcoming it is sparse. Albert and Dabbs had a "hostile" persuader (speaking against the receiver's beliefs) address the receiver from three distances which had been pretested on comfort: uncomfortably close (one to two feet), average (five to six feet) and uncomfortably far (fourteen to fifteen feet). They found less attitude change in the close than the average and far distances. Relevant to distraction, they also found that attention at both the close and far distances was focused on the speaker's physical appearance.[34] Distance deviations, then, apparently distracted from the message, and attention centered on another available distractor, appearance. Another experiment by Garner similarly found less persuasion at an extremely close distance (less than six inches).[35] A third study by Riess manipulated seated distance and subjects' focus on the persuader: subjects were instructed to either attend to the status, expertise or attractiveness of the persuader. Distance was operationalized as falling within Hall's social-consultative zone (3.5 to 7 feet),[36] and although no significant results were found for distance, a trend was obtained whereby perceived persuasiveness increased as distance increased, but only in the status-focus condition.[37] Finally, in two studies involving distance as one of several nonverbal variables, Mehrabian and Williams found that

subjects did not adopt significantly different distances when asked to encode a persuasive message, but that an "immediate distance" (four feet) was decoded as more persuasive than a "nonimmediate distance" (12 feet).[38]

It is difficult to integrate these disparate findings. First, explanations for the results differed from study to study and were often elaborated on a post hoc basis. Albert and Dabbs explained their findings in terms of reactance theory, Mehrabian and Williams relied on the concept of immediacy, Riess developed his own formulation based on impression management, and Garner cited source derogation as an explanation for negative effects in the invasion condition (an expectation not borne out by his credibility results). There is thus no common thread connecting the underlying logic of these studies. Second, the pattern of results cannot be easily synthesized because of the disparity in actual distances and range of distances used. At the close end, distances ranged from less than six inches to four feet, while the far distances employed varied from about four feet to fifteen feet. The Garner and Riess experiments also covered a more restricted range of distances than the others. Additionally, the Reiss distances fell within a normal conversational range, reducing the likelihood that they were noticeable or distracting. Third, the reliance on structured interaction distances in all but the Mehrabian and Williams encoding study exacerbates interpretation of the impact of each distance. The complex nature of the norms governing conversational distance produces high variability in distancing expectations across dyads. What is a comfortable, normative distance for one pair may be too close for the next and too far for yet a next. A given distance such as two feet cannot be definitively declared uncomfortable because it will not be consistently so across people. Consequently, it cannot be determined what distances in the previous

investigations might have qualified as distracting. Finally, all the previous studies omitted detailed descriptions of the confederates. Without knowing how attractive the confederates were, socially and physically, without knowing their age and status relative to the subject, and without knowing their communication styles, it is not possible to draw sound conclusions about the relationship of distance to distraction and persuasion. The personal characteristics of a confederate can significantly influence whether that confederate's choice of distance is responded to in a positive or negative manner.[39] Conflicting findings in the previous studies might therefore be accounted for by differences among the confederates, but this cannot be determined without more information.

As for the role of personal front in creating a distraction and increasing susceptibility to persuasion, even less is known. Almost all theories of interpersonal attraction predict that a source's attractiveness enhances the efficacy of his or her persuasive message,[40] and research has confirmed that greater attractiveness fosters greater attitude change,[41] but explanations of the effect have relied on the value of attractiveness as a reward, an inducement to cooperativeness and so forth, rather than its distractive potential. Other than the implicit support from the Albert and Dabbs, and Burgoon, Cohen, Miller and Montgomery studies,[42] we are aware of no empirical evidence of the distracting influence of source characteristics.

It is clear that neither a theoretical nor empirical base exists from which to make direct predictions about the relationships among nonverbal source characteristics, distraction and persuasion. However, a theoretical formulation does exist which, when reanalyzed from a distraction perspective, can provide the basis for deriving hypotheses. That formulation is the model of violations of personal space expectations, originated by Burgoon and Jones and extended by Burgoon.[43]

The model, designed to predict the effects of deviations from conversational distance norms on communication outcomes, begins with the premise that distances adopted for conversation are highly norm-governed and that individuals develop expectations about what distances will be adopted, based on the norms and any knowledge they have of the other person's idiosyncrasies. The effects of violating those expectations are hypothesized to be a function of three factors: 1) the net reward valence of the initiator (the interactant whose deviations are examined for their impact on a reactant), 2) the direction of deviation (farther or closer) and 3) the amount of deviation. Reward valence is a function of such things as the initiator's attractiveness, status, credibility and power and the use of social rewards and punishments such as praise or criticism. The combination of the various forms of reward and punishment results in a net reward value for the initiator. Initiators with high reward value are expected to achieve optimal communication outcomes (including greater persuasion, credibility and attraction) by deviating from expectations, while initiators with low reward value are predicted to obtain more negative results the more they deviate. In the original model, it was predicted that the optimal deviation for the high reward initiator would be somewhat closer than the norm and that extremely close distances or deviations farther than the norm would produce negative results. Based on their recent findings, Burgoon, Stacks and Woodall have since suggested that the model be revised such that any deviation by a rewarding initiator produces better outcomes than conforming to the norm.[44] Unresolved is whether distance deviations can become so extreme as to turn counterproductive. The original assumption, that at some point a threat threshold is reached beyond which reactions to a violation become more negative, has yet to be sufficiently supported by the research.

The relevance of this model to nonverbal distraction and persuasion is twofold. First, the model is predicated on the assumption that violations of conversational distance expectations are arousing, an assumption that is bolstered by the earlier cited research on the behavioral manifestations associated with distance changes. It is plausible that the heightened activity is accompanied by increased monitoring of the self or the environment to determine the locus of the arousal. In this manner, attention may be deflected away from the content of the message and toward personal considerations. Second, the exact relationship between the distance distraction and vulnerability to persuasion would then depend on the nature of the initiator, as specified in the model. With rewarding initiators, attention might be further diverted by the presence of social rewards. The focus on the nonverbal relational messages being exchanged would inhibit counterarguing, making the reactant more vulnerable to the verbal persuasive message. At the same time, derogation would be precluded and the positive initiator characteristics would further reinforce acceptance of the message, in keeping with Proposition 3. Conversely, for nonrewarding initiators the distance violation might initially be distracting and shift attention to relational considerations, but the combination of negative personal characteristics and aberrant distancing behavior would then activate source derogation. In both cases, the more pronounced the deviation became, the more positive or negative the effects would be, thus conforming to the predictions of the model. Conceivably, a highly extreme deviation might become so distracting that it interfered with learning, thereby preventing any attitude change from occurring. This would lead to predictions consistent with Proposition 1 and similar to those in the original Burgoon-Jones model. However, it seems unlikely that distance deviations or source characteristics could be so extreme

as to totally interfere with the reception of a message. It must be remembered that greater resistance to persuasion is only predicted when distractions are so extreme as to preclude reception or comprehension of the message. It is possible that certain environmental stimuli or physical tasks are capable of severely disrupting the hearing and processing of a message, but in a conversational context, the receiver is forced to maintain some attention to the message if only to be prepared to take his or her turn in the conversation. It is therefore doubtful that a change in distancing or the presence of highly attractive or unattractive personal characteristics could totally distract the receiver's attention from the task at hand, except in the most unusual of circumstances. At any rate, articulating the point at which that degree of distraction might be achieved is beyond our present state of knowledge and probably will only be ascertained through empirical testing.

One other aspect of distraction not covered by the model is receiver propensity to counterargue. The model does not consider characteristics of the receiver except as they involve definitions of the expected distance or the reward valence of the initiator relative to the receiver. However, based on Proposition 4, it seems reasonable to predict that people with a high propensity to counterargue will parallel those with a low propensity to counterargue in conforming to the curvilinear relationships proposed in the model, but that they will be more resistant to persuasion and more prone to derogation across the board.

## HYPOTHESES

Based on the propositions outlined earlier and the application of the model of violations of distancing expectations to distraction, a number of hypotheses could be derived. As a first test of this new formulation, it

was decided to limit reward to physical attractiveness, since it is a well-established form of reward, and to include as indices of persuasion attitude change, ratings of credibility and attraction. Hence, the following hypotheses were selected for testing:

Hypothesis 1: The greater an initiator's physical attractiveness, the greater the message acceptance, assigned credibility and attraction by the reactant.

Hypothesis 2: Given a highly attractive initiator, message acceptance, assigned credibility and attraction by the reactant will increase as the initiator increases deviations from the expected distance.

Hypothesis 3: Given an unattractive initiator, message acceptance, assigned credibility and attraction by the reactant will decrease as the initiator increases deviations from the expected distance.

Hypotheses 4: As the propensity to counterargue increases, resistance to persuasion will increase.

Hypothesis 5: As the propensity to derogate increases, resistance to persuasion will increase.

## METHOD

### Subjects and Confederates

Subjects were 350 undergraduate students enrolled in speech courses who participated either voluntarily or for class credit. Of that total, 287 were experimental subjects, the remainder, control subjects.

The confederates were two male and two female volunteers enrolled in nonverbal communication courses. Initially, twelve volunteers were chosen by the experimenter on the basis of their variability in physical attractiveness. The twelve were asked to appear before 35 students enrolled in an

upper division speech course, who rated them on a series of physical attraction subscales developed by McCroskey and McCain.[45] Volunteers were asked to appear as they normally would, so that their dress and grooming reflected their typical self-presentation. The ratings were submitted to an analysis of variance and compared with t-tests to select as the final four confederates two males and two females whose scores were significantly different from one another and represented a full range of attractiveness.

Independent Measures

There were three independent variables in this investigation: physical attractiveness, distance and propensity to counterargue. Physical attractiveness was operationalized as the ranking each confederate received on physical attraction. To insure that each confederate's self-presentation remained constant, the confederates wore the same clothes and accessories and the women used the same degree of make-up for all experimental sessions.

Distance was operationalized as the thigh-to-thigh seated distance between the confederate and subject. As a basis of comparison with previous studies, four different distance conditions were employed: far, norm, close and threat. Instead of using structured interaction distances, subjects were allowed to establish their own preferred distances from the confederates. This distance, presumably a reflection of the norms relevant to that pair, became the normative distance for those subjects assigned the norm condition. For those assigned the far or close conditions, the confederate subsequently moved 18 inches closer or 18 inches farther than the established norm. For the threat distance, the confederate moved to within three inches of the subject, a distance that is well within that classified as an invasion of personal space and threat-provoking. Analytically, distance was treated both as a categorical variable with four levels (threat, close, norm and far)

and as a continuous variable, defined as the actual distance adopted by the subject plus or minus the confederate's deviation. The treatment of distance as four levels was used to identify means for use in interpretation of the hypothesis. The continuous treatment provided a more sensitive test of the hypothesis. The actual distances adopted by subjects ranged from one to forty-seven inches, indicating that subjects did not feel constrained to adopt any particular distance.

Subjects' propensity to counterargue was measured by using the same checklist technique reported by Brandt et al.,[46] which was designed to tap the content dimension of counterarguing. Additionally, items were added to measure subjects' motivation to derogate the message source. To begin with, thirty propositional statements were pretested, each relating to a different topic, to determine which were most discrepant from held beliefs. Sixty-five undergraduates served as pretest subjects. Each responded to the statements on three sets of scales: 1) a seven-point interval scale bounded by "strongly agree" and "strongly disagree;" 2) a set of four semantic differential scales to measure the evaluative dimension of meaning,[47] and 3) the Known Interval Scale, a scale derived from successive interval scaling that has standardized values for its 11 adjective anchors.[48] The first scale items were identical to those used by Brandt, et al.; the second and third were included to see if results would differ. Based on subjects' responses, the following six topics were chosen as most belief discrepant: 1) "The State University System should redesignate areas of study to different universities, i.e., ____should only be allowed to offer hard sciences,____only social sciences, ____only management and marketing, etc.;" 2) "24-hour visitation in dormitories should be abolished at this university;" 3) "Search and seizure limits on police should be abolished;" 4) "The purpose of the university should be primarily research-oriented with teaching at best a secondary orientation;"

5) "There should be an immediate tuition increase at this university;" and 6) "The sale of heroin in the United States should be legalized." The six topics were chosen because they yielded means of 2.1 or less on the belief scale (on a one to seven scale), responses were highly skewed in the direction of opposition and the three sets of scales were highly correlated. Five of the topics were then selected for inclusion in the propensity measure and the remaining topic was used for the actual message (legalization of heroin). Twelve supportive arguments for each of the five topics were then generated from various sources (e.g., debate files, speeches, newspapers). Additionally, ten phrases were added which represented derogatory or defamatory statements of a source using these arguments (e.g., "a source who uses such arguments is obviously incompetent"). These were interspersed with four positive statements about the source so that subjects would be less likely to recognize their purpose. The arguments and derogation statements were ordered in a check-list format under the appropriate topic, with the source derogation list appearing after the content list. Responses were converted to percentage scores, as done by Brandt et al.

Because Brandt et al. made no assumptions concerning the dimensionality of their instrument and because a second set of items had been added, estimates of internal reliability were computed for each topic and derogation scale. The estimates were computed by the Kuder-Richardson Formula 20 for dichotomous data.[49] Reliabilities obtained were .59, .72, .54, .75 and .75 for each of the five sets of arguments respectively. Reliabilities for the source derogation scales were .59, .75, .80, .72 and .77 respectively. Cronbach's coefficient alpha was then computed to determine subjects' frequency of acceptance-rejection across topics for each set of items.[50] Coefficient alphas of .69 and .54 were obtained for the content and source derogation measures respectively. Reliability estimates were lower than

expected, foreshadowing problems with subsequent analyses.

As a measure of external validity, a separate sample of subjects (n=29) was administered the propensity to counterargue/derogate checklist, exposed to a randomly selected recording of the experimental message, and requested to react to the message in essay form. Statements were then categorized according to whether they were content- or source-oriented and were counted. The number of statements was then correlated with the subjects' scores on the propensity measures. Because the experimental message was heard before the essay was written, it was expected that the correlation between the number of counterarguments and derogatory statements would be high for the essay measure. The obtained correlation ($r$=.82, $p < .05$) indicates the statements were related. However, the correlations between the statements and the propensity measures were low and nonsignificant (.05 for counterarguing and .09 for derogation), again casting doubt on the method for measuring counterarguing and derogation.

Experimental Message

The topic of the persuasive message argued in favor of the legalization of heroin in the United States. The message was written by graduate students for a previous study[51] and found to be extremely persuasive. The message contained 491 total words with an average sentence length of 21.20 words. Comprehension was rated as extremely high, with a Contingency Index of 6.65. The Gunning-Fog Readability Index indicated the readability of the message was comprehendable to those with over 12 years of formal education. Since the intensity of the language used in a message has been demonstrated to affect attitude change, the message was created to be moderately intense, with highly intense metaphors and extreme adverbial qualification not used.

The message was memorized by each confederate. It was rehearsed until a verbatim delivery of approximately the same rate was reached. The message took approximately three and one half minutes to deliver. To insure that the messages did not differ across distance and reward conditions, all messages were taped via a two-way speaker system without the knowledge of the confederate, and one message from each confederate was randomly selected. These messages were rated by 20 undergraduates on credibility and attitude scales. Mean ratings were then compared to determine if any systematic variation had occurred. No significant differences were found. Additionally, six tapes per confederate were randomly selected and timed. No significant differences were found for length of message either between or within confederates.

Dependent Measures

There were three dependent measures in this investigation: source credibility, source attraction and attitude. Additionally, two distraction measures were added as manipulation checks. Subjects rated the confederates on credibility via fifteen semantic differential scales which measure peer credibility.[52] Altogether five dimensions were tapped: competence, character, composure, extroversion and sociability. Attraction was measured by a series of twelve Likert-type statements that reflect physical, social and task attraction.[53] Separate dimension scores were used as the dependent measures for attraction and credibility. Attitude was measured with the same two scales plus the same scales used for the attitude pretest: the four evaluative items suggested by Osgood, Suci and Tannenbaum and the Known Interval Scale (KIS).[54] The correlation between the two attitude scales was .86 ($p < .05$).

A self-report measure on distraction was used to establish if the distance deviations were distracting. The check, on distraction which should have occurred in the experimental setting, consisted of five seven-interval semantic differential items bounded by the adjective pairs, "calm-anxious," "comfortable-uncomfortable," "distracted-not distracted," "relaxed-tense" and "attentive-inattentive." The scales were submitted to factor analysis with varimax rotation, which produced one factor with all five scales loading greater than .60.

Experimental Procedures

Two weeks prior to the experiment, students enrolled in sophomore and junior level speech classes completed the propensity to counterargue/derogate measure. Results indicated a mean of 65.7 percent rejection, with a standard deviation of 14.45.

Following training of the confederates, subjects were asked to report to a room to participate in a study on coverbal word use. The room, which was equipped with a two-way speaker system that permitted audio-taping, had the appearance of a clinic waiting room. It was carpeted and arranged with a row of armless, padded chrome chairs which, when placed side-by-side, formed a bench-like surface that occupied most of the wall. Three identically furnished rooms were counterbalanced within the design.

Prior to entering the room, subjects were paired with a confederate, informed that a short delay had occurred and told that they would be placed in a "waiting room." In each case the confederate entered the room first and sat at the far end of the bench, approximately 20 inches from the end. The subject then took a seat and an assistant handed each an informed consent form to be completed. The subject's form indicated the nature of the coverbal interview which was to take place and asked that (s)he sign the

form. The confederate's form accomplished two tasks: 1) it allowed him/her to record the normative distance adopted by the subject on the form and 2) it contained the assigned distance condition (s)he was to adopt. Once the forms were completed the assistant collected them and informed the pair that (s)he would be back shortly. After a few seconds, the confederate stood up, crossed the room and closed the door, which the assistant had "accidently" left ajar. Upon returning, (s)he adopted the assigned distance condition. Once seated, the confederate inquired whether or not the subject was enrolled in a speech course and whether (s)he was taking public speaking. The confederate then stated that (s)he had to deliver a memorized speech in class (indicating that the topic (s)he had chosen was from a survey filled out earlier in the course) and asked if (s)he might practice it on the subject. All but three subjects agreed to hear the speech (the three who did not were in threat conditions and immediately crossed the room, refusing to cooperate).

During the message presentation all other nonverbal behaviors were kept constant. Eye contact was practiced and maintained at a fifty percent rate of gaze; the same body angle and orientation were maintained by each confederate at all distance conditions.

Following the message, the subject and confederate were taken to separate rooms. While the subject reported to the next room, the confederate exited from the area by means of a back stairway and returned to the original starting position. Once in the room, the subject was informed that since the study was designed to explore "the interface between humans and machines versus the interface between humans and humans," the experimenters needed some information about the subject and the person with whom (s)he had been waiting before proceeding with the remainder of the experiment. Subjects

were led to believe that they might be paired with the other person for the next task. They then completed the source credibility scales, the attraction scales, the first distraction manipulation check, and the attitude statement, which was inserted among five other statements. It was explained to subjects that the attitude section was not part of the current experiment, but was included for someone else collecting survey data on campus. It was hoped that the subject would equate this section with the survey mentioned earlier by the confederate. Additionally, subjects were informed that they did not have to complete the survey, but that it would help the other researchers if they did.

Following completion of the dependent measures, the subject then reported to a second room and was partially debriefed. All subjects were then debriefed and sworn to secrecy.

Additionally, a control group of 34 subjects responded to the attitude scales but received no exposure to the experimental message.

## RESULTS

### Manipulation Checks

As a check on whether the message was persuasive, the attitude scores of the control group, which received no message, were compared to those of the experimental groups. Analyses of variance yielded significant $F$-values ($F = 15.08$; $df = 2,318$; $p < .05$ for the KIS measure, $F = 12.24$; $df = 2,318$; $p < .05$ for the semantic differential). Dunnett's t-test comparisons to the control group revealed that attitude scores were higher for all experimental conditions except for the least attractive confederate.[55] (Means appear in Table 1.) These results were taken as support of the persuasiveness of the experimental message.

Because the hypotheses were predicated on the assumption that distance violations and physical attractiveness can serve as sources of distraction, a critical check in this experiment was whether distraction varied across conditions. A multiple regression of distraction on reward (treated as a continuous variable), distance (treated as a continuous variable), distance by reward, propensity to counterargue and source derogation produced significant effects for distance ($F = 5.99$; $df = 1,280$; $p < .05$), reward ($F = 7.99$; $df = 1,280$; $p < .05$), and propensity to counterargue ($F = 3.07$; $df = 1,280$; $p < .05$). The means, calculated for the four distance conditions, were 14.61 for threat, 12.93 for close, 13.64 for norm and 14.72 for far, indicating greater distraction in the two extreme conditions as expected. For reward, the means for the four confederates, in descending order of attractiveness, were 13.77, 13.02, 13.49, and 15.60, indicating greatest distraction with the least attractive interviewer, followed by the most attractive. While the means conformed to expectations, they were all below the midpoint of the scale; thus neither the distance manipulation nor attractiveness caused a severe distraction, and certainly not one sufficient to impair learning of the message.

Another assumption from the rationale was that subjects with a greater propensity to counterargue and derogate would be generally more negative toward a message source. Multiple regressions identical to those used to test distraction tested the effects of each propensity measure on evaluations of the confederates. For counterarguing, significant effects obtained for composure ($F = 9.72$; $df = 1,280$; $p < .05$), and task attraction ($F = 6.92$; $df = 1,280$; $p < .05$), and trends obtained for competence ($F = 3.55$; $df = 1,280$; $p < .10$), and character ($F = 3.50$; $df = 1,280$; $p < .10$). For source derogation, significant effects obtained for sociability ($F = 7.15$; $df = 1,280$; $p < .05$) and social attraction ($F = 5.84$; $df = 1,280$; $p < .05$) and a trend

for character ($F = 3.12$; $df = 1,280$; $p < .10$). An examination of the beta weights indicated that, contrary to expectations, greater counterarguing and derogation correlated with more positive evaluations of the source in all cases. These findings, coupled with the low reliability data and failure of the essay-generated argumentation to correlate with the propensity measures, cast further doubt on their validity.

The final manipulation check was designed to reconfirm the differences across confederates in physical attractiveness. Accordingly, the results on the physical dimension of attraction were treated as a manipulation check. An analysis of variance produced results consistent with the pretest on attractiveness; there was a significant effect for reward ($F = 39.05$; $df = 3.284$; $p < .05$ and the means were in the correct rank order (22.62, 18.47, 16.58, and 14.08).

Hypothesis One

The first hypothesis, which predicted that message acceptance, credibility and attraction would increase with physical attractiveness (reward), was tested with a multivariate analysis of variance of reward and sex of subject on the two attitude measures, the five dimensions of credibility and the remaining two dimensions of attraction (excluding physical attraction, which was treated as a manipulation check). Sex was included as a blocking variable. The analysis produced a significant multivariate main effect for reward (Wilks = .683 approximate $F = 4.09$; $df = 27,792$; $p < .05$). Univariate $F$-tests also revealed significant effects for all dependent measures except the two attitude measures and the character dimension of credibility, which showed a trend ($p < .10$). The means, reported in Table 1, revealed that for all significant dependent variables, the means were in proper rank order for the second through fourth confederates, with the least attractive confederate

always receiving much lower ratings than the other three; however, the other three were often rated similarly and the most physically attractive confederate received lower ratings on credibility than did the second most attractive confederate. Thus, while the results largely confirmed Hypothesis 1, they showed that other elements in the demeanor of confederates two and three were partly compensating for their lower physical attractiveness to produce favorable evaluations. These findings meant that only the fourth confederate could be legitimately regarded as representing low reward for the test of Hypothesis 3.

There were no significant effects for sex in the analysis.

Hypotheses Two and Three

The second hypothesis, which posited that for an attractive interviewer, message acceptance, credibility and attraction would increase with violations from distancing expectations, was initially tested with a multivariate analysis of variance of reward (data for the two most attractive interviewers) on the same dependent measures as Hypothesis 1, plus physical attraction. The multivariate and univariate $F$-tests failed to produce any significant effects. The hypothesis was then tested with separate multiple regressions for each of the two confederates, using distance as a continuous variable, entered into the model as a polynomial equation with linear, quadratic and cubic terms. It was expected that this analysis, while losing some power by halving the degrees of freedom, would provide a more sensitive test of distance effects and would reveal any differences between the two confederates. For the most attractive confederate, only trends were uncovered: for composure, a quadratic relationship ($F = 3.03$; $df = 1,70$; $p < .10$); for extroversion, a linear relationship ($F = 3.77$; $df = 1,71$; $p < .10$); for physical attraction, a linear relationship ($F = 2.83$; $df = 1,71$; $p < .10$); and for the KIS measure of message acceptance, another

linear relationship ($F$ = 2.87; df = 1,70; $p < .10$). For the second confederate, there was a significant nonlinear relationship for social attraction, linear ($F$ = 3.80; df = 1,62; $p < .10$), quadratic ($F$ = 4.97; df = 1,62; $p < .05$), cubic ($F$ = 5,84; df = 1,62; $p < .05$); a nonlinear trend for competence, linear ($F$ = 3.57; df = 1,62; $p < .10$), quadratic ($F$ = 3.55; df = 1,62; $p < .10$); and a linear trend for sociability ($F$ = 3.48; df = 1,64; $p < .10$). The cell means, reported in Table 1, reveal that in all cases, the configuration of means either conformed to the hypothesized relationship or the extreme distances produced the most positive effects, a finding also partially supportive of the hypothesis. These results were taken as marginal support of the hypothesis.

The third hypothesis, which posited that unattractive individuals would achieve optimal results by conforming to distancing expectations (the norm), was similarly tested with a multivariate analysis of variance and multiple regressions. However, only data from the least attractive interviewer were used. The analyses failed to produce any significant effects.

Because of the necessity of analyzing data for each confederate separately, it was important to examine the power of these tests. Previous research had led to the expectation that distance alterations by themselves would only produce small effects, both because they are only one of several variables and because they are a less noticed element in an ongoing interaction. Consequently, power was examined for the ability to detect a small effect size (.20). The coefficients were found to be rather low (.39 and below), providing a partial explanation of the nonsignificant results.

Hypothesis Four and Five

The fourth and fifth hypotheses predicted propensity to counterargue and to derogate the source would be associated with greater resistance to persuasion (less message acceptance). A multivariate multiple regression,

regressing the two attitude measures on the two propensity measures, failed to produce significant effects, a result anticipated from the reliability coefficients obtained earlier.

## DISCUSSION

A number of important conclusions can be drawn from this investigation, both from the significant and nonsignificant findings. First, the manipulation checks on distraction demonstrated that distance violations and physical attractiveness can serve as moderate sources of distraction. Given the rather brief exposure that subjects had to the confederate and the somewhat contrived nature of the experiment, these findings imply that under more natural interaction conditions, conversational distance violations and elements of self-presentation can be effectively utilized to distract a receiver. Moreover, those violations apparently carry positive connotations when committed by an attractive individual as they translate into higher ratings on some dimensions of credibility and attraction. Finally, in keeping with Propositions 3 and 5, there is modest evidence that these positive forms of distraction lead to greater susceptibility to persuasion.

That the effects for distraction are not more dramatic on message acceptance and source evaluations is disappointing but explainable. First, extremes in attractiveness were not represented in this experiment, particularly at the low end. The lowest physical attraction score was only two points below the midpoint of the scale. Moreover, the means on social and task attraction revealed that the second and third confederates were highly similar to the first confederate in their ratings. Thus, aspects of their demeanor compensated for the lower physical attractiveness, making the three of them highly similar on composite attractiveness. The result was that the distance hypotheses, which depended on extremes in attractiveness

for the distinctly different curvilinear relationships to obtain, did not receive the most fair test, especially in the low reward condition. This interpretation is bolstered by the fact that previous experiments have had relatively consistent and significant findings in the low reward condition. Second, as has been noted in previous laboratory experiments on distance violations, the use of seated distances and the laboratory setting itself may mitigate against finding more than marginal effects for distance violations. More naturalistic tests are needed. It also may be advisable to manipulate not just distance alone but several nonverbal cues that communicate physical and psychological closeness or distance. Argyle and Dean's equilibrium theory[56] would suggest that in the absence of control over all immediacy cues (such as eye contact, smiling, forward body lean), people will adjust levels of intimacy in one channel to compensate for levels of intimacy in another channel so that an equilibrium level is maintained. It is possible that confederates made unconscious, subtle changes in other nonverbal cues to balance the increases or decreases in physical proximity. These adjustments could be controlled by having confederates manipulate an entire complex of cues. Third, it is possible that the procedures used in this experiment, which involved confederates asking subjects to help them out by listening to the speech, elicited prosocial responses that overrode other reactions to the confederate. This prosocial effect might also account for the generally high persuasiveness of the counterattitudinal message, without regard for the behaviors of the speaker. In retrospect, it would be preferable to avoid this kind of potential demand characteristic and incorporate the message presentation within a more natural conversation. Finally, the low power coefficients provide a partial explanation of the nonsignificant findings.

The results on the propensity measures cast serious doubt on either the measurement of propensity to counterargue or the construct itself. In this investigation, using the same procedures for constructing a measure of propensity to counterargue as had been used in the past, the measure of counterarguing propensity had low reliability, failed to correlate with arguments generated in essay form after hearing an actual message, failed to predict message acceptance, and, contrary to the underlying assumptions of the construct, correlated with positive source evaluations. This rather poor showing for the propensity to counterargue measure is inconsistent with the high reliability and significant results reported by Brandt, et al.[57] However, it is possible that their results were partly an artifact of their procedures. In their investigation, subjects listened to a tape-recorded message attributed to a high status source. The arguments in the message were the same as on the propensity pretest. Thus, the pretest may have inadverently inoculated subjects, prompting those who marked more items on the pretest to be more resistant to the message, which came from a potentially threatening source. These potential demand characteristics were avoided in the present study by using a novel message, with no consequent resistance to persuasion. It is also possible that the live, face-to-face context and the equal status confederate used in the present investigation inhibited counterarguing.

At any rate, the contrary results from this experiment call into question whether the propensity measure is in fact measuring counterarguing tendencies or some other construct (such as intelligence or Machiavellianism). To suggest that a generalized propensity to counterargue does not exist would be premature, but the present findings indicate a need for more serious investigation of the nature of the construct. Of particular interest should

be whether face-to-face situations, which require some degree of interpersonal involvement, reduce counterarguing and derogation tendencies relative to taped presentations, which afford the receiver a more impersonal, anonymous role. Also unresolved is the question of whether counterarguing and derogation are two alternative forms of resisting influence or whether the one can trigger the other.

In sum, the present investigation provides the beginnings of support for interpreting the effects of nonverbal distractors from the perspective of the model of conversational distancing violations. For the reward condition at least, the results largely conform to the revised model, in which greater deviations from the expected distance produce more positive outcomes. Given that distance and physical appearance were found to be moderately distracting, it is reasonable to conclude that part of the explanation for why distance violations produce better effects is that they have arousal value and may heighten attentiveness to personal characteristics of the source, while reducing attentiveness to the verbal message. The nonverbal messages carried by the source's behavior then become the salient determinant of whether responses are positive or negative. Further research will need to establish more firmly that these distractive effects translate into greater susceptibility to persuasion when the distractions are positive and greater resistance to persuasion when the distractions are negative in nature.

## References

[1]Gerald R. Miller and Michael Burgoon, "Persuasion Research: Review and Commentary," in Communication Yearbook 2, ed. Brent Rubin (New Brunswick; N.J.: Transaction Books, 1978), pp. 29-47.

[2]R. A. Weyer, Cognitive Organization and Change: An Information Processing Approach (Potomac, M.D.: Lawrence Erlbaum Associates, Pubs., 1974).

[3]Leon Festinger and Nathan Maccoby, "On Resistance to Persuasive Communications," Journal of Abnormal and Social Psychology, 68 (1964), 359-366.

[4]Robert S. Baron, Penny H. Baron, and Norman Miller, "The Relation Between Distraction and Persuasion," Psychological Bulletin, 80 (1973), 310-323.

[5]Festinger and Maccoby; Jonathon L. Freedman and David O. Sears, "Warning, Distraction, and Resistance to Influence," Journal of Personality and Social Psychology, 1 (1965), 262-266; Sara B. Kiesler and Roberta B. Mathog, "Distraction Hypothesis in Attitude Change: Effects of Effectiveness," Psychological Reports, 23 (1968), 1123-1133; Robert A. Osterhouse and Timothy A. Brock, "Distraction Increases Yielding to Propaganda by Inhibiting Counterarguing," Journal of Personality and Social Psychology, 15 (1970), 344-358; Philip Zimbardo, Mark Snyder, James Thomas, Alice Gold, and Sharon Gurwitz, "Modifying the Impact of Persuasive Communications With External Distraction," Journal of Personality and Social Psychology, 16 (1970), 669-680; and John P. Keating and Timothy C. Brock, "Acceptance of Persuasion and the Inhibition of Counterarguing Under Various Distraction Tasks," Journal of Experimental Psychology, 10 (1974), 301-309.

[6]Timothy C. Brock, "Communication Discrepancy and Intent to Persuade as Determinants of Counterargument Production," Journal of Experimental Psychology, 3 (1967), 269-309.

[7]See, for example, Henry S. Breitrose, "The Effect of Distraction in Attenuating Counterarguments," Diss. Stanford University, 1966; Osterhouse and Brock; and Keating and Brock.

[8]William J. McGuire, "Attitudes and Opinions," Annual Review of Psychology, 17 (1966), 475-514.

[9]Gordon A. Haaland and M. Venkatesan, "Resistance to Persuasive Communications: An Examination of the Distraction Hypothesis," Journal of Personality and Social Psychology, 9 (1968), 167-170; and John L. Vohs and Roger L. Garrett, "Resistance to Persuasion: An Integrative Framework," Public Opinion Quarterly, 32 (1968), 445-462.

[10]Breitrose; D. H. Gardner, "The Effective of Divided Attention on Attitude Change Influenced by a Marketing Communication," in Science, Technology and Marketing, ed. R. M. Haus (Chicago: American Marketing Association, 1966), pp. 532-540; and Philip G. Zimbardo, Ebbe B. Ebbesen, and S. C. Fraser, "Negative Emotional Distraction and Attitude Change: Horror, Disgust and Inhibition," unpublished manuscript, described in Philip G. Zimbardo and Ebbe B. Ebbesen, Influencing Attitudes and Changing Behavior (Reading, M.A.: Addison-Wesley, 1969).

[11]Breitrose; Gardner; Vohs and Garrett; and Zimbardo, Ebbesen, and Fraser.

[12]See, for example, Festinger and Maccoby; Osterhouse and Brock; and Baron, Baron, and Miller.

[13]Baron, Baron, and Miller.

[14]Zimbardo et al., "Modifying."

[15]Michael Burgoon, Marshall Cohen, Michael D. Miller, and Charles L. Montgomery, "An Empirical Test of a Model of Resistance to Persuasion," Human Communication Research, 5 (1978), 27-39.

[16]Breitrose; Gardner; and Vohs and Garrett.

[17]Dennis J. Regan and Joan B. Cheng, "Distraction and Attitude Change: A Resolution," Journal of Experimental Social Psychology, 9 (1973), 138-147.

[18]David R. Brandt, James W. DinKelacker, and Nick J. Stoyanoff, "An Experimental Investigation of the Effects of Listener Propensity to Counterargue and Distraction on Communication Acceptance," paper presented to the Speech Communication Association, Washington, D.C., December, 1977.

[19]Ibid.

[20]Thomas D. Cook, "Competence, Counterarguing, and Attitude Change," Journal of Personality, 37 (1969), 342-358; and Baron, Baron, and Miller.

[21]Festinger and Maccoby.

[22]Norman Miller and Robert S. Baron, "On Measuring Counterarguing," Journal of Theory of Social Behavior, 3 (1973), 101-118.

[23]Kiesler and Mathog.

[24]Brandt, DinKelacker, and Stoyanoff.

[25]Burgoon, Cohen, Miller, and Montgomery.

[26]M. J. Horowitz, D. F. Duff, and L. O. Stratton, "Body Buffer Zones," Archives of General Psychiatry, 11 (1964), 651.

[27]Michael A. Dosey and Murray Meisels, "Personal Space and Self-protection," Journal of Personality and Social Psychology, 11 (1969), 93.

[28]Judee K. Burgoon and Stephen B. Jones, "Toward a Theory of Personal Space Expectations and Their Violations," Human Communication Research, 2 (1976), 131.

[29]Michael Argyle and Janet Dean, "Eye Contact, Distance and Affiliation," Sociometry, 28 (1965), 289-304; Nancy Jo Felipe and Robert Sommer, "Invasions of Personal Space," Social Problems, 14 (1966), 206-214; Kristina A. Krail and Gloria Leventhal, "The Sex Variable in the Invasion of Personal Space," Sociometry, 39 (1976), 170-173; Horowitz, Duff, and Stratton; G. McBride, M. G. King, and J. W. James, "Social Proximity Effects on Galvanic Skin Responses in Adult Humans," Journal of Psychology, 61 (1965), 153-157; Robert Sommer, Personal Space: The Behavioral Basis of Design (Englewood Cliffs, N.J.: Prentice-Hall, 1969); James C. Baxter and Bettye F. Deanovich, "Anxiety Arousing Effects of

Inappropriate Crowding," Journal of Consulting and Clinical Psychology, 35 (1970), 174-178; Miles L. Patterson and Lee B. Sechrest, "Interpersonal Distance and Impression Management," Journal of Personality, 38 (1970), 161-166; Miles L. Patterson, Sherry Mullins, and Jeanne Romano, "Compensatory Reactions to Spatial Invasion," Sociometry, 34 (1971), 114-121; R. Dennis Middlemist, Eric S. Knowles, and Charles F. Mather, "Personal Space Invasions in the Lavatory: Suggestive Evidence for Arousal," Journal of Personality and Social Psychology, 33 (1976), 541-546; H. Garfinkel, "Studies in the Routine Grounds of Everyday Activities," Social Problems, 11 (1964), 225-250; Albert Mehrabian, "Relationship of Attitude to Seated Posture, Orientation, and Distance," Journal of Personality and Social Psychology, 10 (1968), 26-30; and Gordon N. Goldberg, Charles A. Kiesler, and Barry E. Collins, "Visual Behavior and Face-to-Face Distance During Interaction," Sociometry, 37 (1974), 43-53.

[30]Argyle and Dean; and Patterson and Sechrest.

[31]Judee K. Burgoon, "Further Explication and an Initial Test of the Theory of Violations of Personal Space Expectations," Human Communication Research, 4 (1978), 129-142; Judee K. Burgoon, Don W. Stacks, and W. Gill Woodall, "A Communicative Model of Violations of Distancing Expectations: Further Tests and a Critique," Western Journal of Speech Communication, 43 (1979), 153-167; Stuart Albert and James M. Dabbs, "Physical Distance and Persuasion," Journal of Personality and Social Psychology, 15 (1970), 265-270.

[32]Burgoon, Stacks, and Woodall; Patrick H. Garner, "The Effects of Invasions of Personal Space on Interpersonal Communication," Thesis, Illinois State University, 1972; and Teresa J. Rosegrant and James C. McCroskey, "The Effects

of Race and Sex on Proxemic Behavior in an Interview Setting," Southern Speech Communication Journal, 40 (1975), 408-420.

[33]Erving Goffman, Presentation of Self in Everyday Life (Garden City, N.Y.: Doubleday Anchor Books, 1959).

[34]Albert and Dabbs.

[35]Garner.

[36]Edward T. Hall, The Hidden Dimension (Garden City, N.Y.: Doubleday Anchor Books, 1969).

[37]Marc Riess, "Proxemic Determinants of Perceived Communicator Characteristics and Attitude Change," Diss. University of Florida, 1977.

[38]Albert Mehrabian and Martin Williams, "Nonverbal Concomitants of Perceived and Intended Attractiveness," Journal of Personality and Social Psychology, 13 1969), 37-58.

[39]Burgoon, Stacks, and Woodall; Burgoon; and Rosegrant and McCroskey.

[40]James T. Tedeschi, Barry R. Schlenker, and T. Bonoma, Conflict, Power and Games: The Experimental Study of Interpersonal Relations (Chicago: Aldine, 1973); and Ted L. Huston, "A Perspective on Interpersonal Attraction," in Foundations of Interpersonal Attraction, ed. Ted L. Huston (New York: Academic Press, 1974), pp. 3-28.

[41]Judson Mills and Elliot Aronson, "Opinion Change as a Function of the Communicator's Attractiveness and Decision to Influence," Journal of Personality and Social Psychology, 1 (1965), 173-177.

[42]Albert and Dabbs; Burgoon, Cohen, Miller, and Montgomery.

[43]Burgoon and Jones; Burgoon.

[44]Judee K. Burgoon, Don W. Stacks, and W. Gill Woodall, "Personal Space Expectations and Reward as Predictors of Recall, Credibility and Attraction," paper presented to the Speech Communication Association, Washington, D. C., December, 1977; and Burgoon, Stacks, and Woodall, "A Communicative Model."

[45]James C. McCroskey and Thomas A. McCain, "The Measurement of Interpersonal Attraction," Speech Mongraphs, 41 (1974), 261-266.

[46]Brandt, DinKelacker, and Stoyanoff.

[47]Charles E. Osgood, George J. Suci, and Percy H. Tannenbaum, "The Measurement of Meaning (Urbana, I.L.: University of Illinois Press, 1957).

[48]Judee K. Burgoon and Michael Burgoon, "The Construction of More Precise and Efficient Verbal Rating Scales," unpublished manuscript, Michigan State University, 1979.

[49]J. P. Guilford, Psychometric Methods, 2nd ed. (New York: McGraw-Hill, 1954).

[50]Lee J. Cronbach, "Coefficient Alpha and the Internal Structure of Tests," Psycometrika, 16 (1951), 297-334.

[51]For complete details on message construction and testing, see Burgoon, Cohen, Miller, and Montgomery, pp. 33-34.

[52]James C. McCroskey, Thomas Jensen and Cynthia Valencia, "Measurement of the Credibility of Peers and Spouses," paper presented to the International Communication Association, Montreal, April, 1973.

[53]McCroskey and McCain.

[54]Osgood, Suci, and Tannenbaum; Burgoon and Burgoon.

[55]See B.J. Winer, Statistical Principles in Experimental Design, 2nd ed. (New York: McGraw-Hill, 1971), pp. 201-204.

[56]Argyle and Dean.

[57]Brandt, DinKelacker, and Stoyanoff.

TABLE 1

MEANS FOR REWARD AND DISTANCE CONDITIONS FOR ALL DEPENDENT VARIABLES

| DEPENDENT VARIABLE | REWARD (CONFEDERATE) | DISTANCE CONDITION THREAT | CLOSE | NORM | FAR | REWARD MAIN EFFECT |
|---|---|---|---|---|---|---|
| PHYSICAL ATTRACTION | 1 (n=73) | 23.56 | 22.28 | 22.95 | 21.59 | 22.62 |
| | 2 (n=66) | 17.35 | 18.41 | 18.18 | 20.13 | 18.50 |
| | 3 (n=76) | 15.81 | 17.24 | 17.16 | 16.26 | 16.58 |
| | 4 (n=72) | 13.18 | 14.47 | 13.06 | 15.45 | 14.08 |
| SOCIAL ATTRACTION | 1 | 23.33 | 23.33 | 24.00 | 22.00 | 23.21 |
| | 2 | 23.06 | 22.65 | 22.35 | 23.93 | 22.97 |
| | 3 | 20.95 | 23.88 | 22.37 | 23.42 | 22.58 |
| | 4 | 19.18 | 20.18 | 20.33 | 21.85 | 20.44 |
| TASK ATTRACTION | 1 | 21.17 | 22.39 | 21.65 | 21.18 | 21.60 |
| | 2 | 21.12 | 21.94 | 21.12 | 22.27 | 21.59 |
| | 3 | 20.81 | 21.65 | 21.42 | 20.58 | 21.09 |
| | 4 | 18.53 | 19.71 | 18.56 | 20.60 | 19.39 |
| COMPETENCE | 1 | 22.33 | 21.83 | 22.05 | 22.18 | 22.10 |
| | 2 | 23.00 | 21.82 | 20.88 | 24.07 | 22.39 |
| | 3 | 21.90 | 21.82 | 22.21 | 20.68 | 21.66 |
| | 4 | 18.82 | 21.47 | 18.61 | 19.30 | 19.53 |
| CHARACTER | 1 | 21.50 | 22.00 | 21.20 | 20.65 | 21.34 |
| | 2 | 22.18 | 22.47 | 21.47 | 21.93 | 22.01 |
| | 3 | 1.52 | 21.82 | 21.79 | 20.89 | 21.50 |
| | 4 | 9.65 | 21.88 | 19.56 | 20.15 | 20.29 |
| SOCIABILITY | 1 | 22.50 | 23.28 | 24.20 | 22.65 | 23.19 |
| | 2 | 24.23 | 25.12 | 25.29 | 25.93 | 25.12 |
| | 3 | 23.38 | 25.58 | 23.89 | 24.26 | 24.22 |
| | 4 | 20.70 | 22.59 | 19.50 | 21.45 | 21.06 |
| COMPOSURE | 1 | 20.00 | 17.94 | 19.30 | 19.12 | 19.10 |
| | 2 | 19.41 | 21.41 | 18.47 | 20.40 | 19.91 |
| | 3 | 18.09 | 15.23 | 19.32 | 15.32 | 17.07 |
| | 4 | 12.59 | 13.47 | 13.22 | 13.75 | 13.28 |

TABLE 1 (continued)

| DEPENDENT VARIABLE | REWARD (CONFEDERATE) | DISTANCE CONDITION THREAT | CLOSE | NORM | FAR | REWARD MAIN EFFECT |
|---|---|---|---|---|---|---|
| EXTROVERSION | 1 | 22.17 | 22.44 | 22.50 | 23.88 | 22.73 |
| | 2 | 24.06 | 24.35 | 23.88 | 24.93 | 24.29 |
| | 3 | 22.43 | 24.12 | 22.58 | 22.74 | 22.92 |
| | 4 | 21.18 | 21.53 | 18.33 | 19.20 | 20.00 |
| ATTITUDE, KIS | 1 | 4.79 | 4.23 | 3.56 | 3.67 | 4.06 |
| | 2 | 3.02 | 4.18 | 4.37 | 4.44 | 3.99 |
| | 3 | 4.59 | 4.58 | 3.83 | 4.32 | 4.33 |
| | 4 | 3.97 | 2.79 | 3.26 | 3.83 | 3.48 |
| ATTITUDE, SEMANTIC DIFFERENTIAL | 1 | 13.50 | 10.00 | 10.40 | 10.71 | 11.14 |
| | 2 | 7.59 | 11.29 | 11.47 | 11.33 | 10.39 |
| | 3 | 11.52 | 13.71 | 9.74 | 12.37 | 11.78 |
| | 4 | 12.29 | 7.06 | 9.33 | 9.20 | 9.46 |